

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

This opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

*Ex parte* RAYMOND C. MCGARVEY

Appeal No. 95-3431  
Application 07/937,560<sup>1</sup>

ON BRIEF

MAILED

JUL 31 1995

PAT.&T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Before MEISTER, FRANKFORT and McQUADE, *Administrative Patent Judges*.

MEISTER, *Administrative Patent Judge*.

**DECISION ON APPEAL**

Raymond C. McGarvey (the appellant) appeals from the final rejection of claims 1-20, 22 and 23. Claim 21, the only other claim present in the application, stands allowed. We reverse.

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<sup>1</sup> Application for patent filed August 31, 1992. According to applicant, the application is a continuation-in-part of Application 07/652,225, filed February 6, 1991, which is a continuation of Application 07/392,460, filed August 11, 1989, which is a continuation-in-part of Application 07/694,066, filed May 1, 1991.

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The appellant's invention pertains to a face seal fitting and to a method of sealing which utilizes such a fitting. The face seal fitting includes first and second tubular elements and an annular gasket having conical or tapered portions. Of particular importance is the provision of protruding formations on opposing faces of the tubular elements which engage the conical portions on the gasket in order to (1) form a seal and (2) enlarge the inner diameter of the gasket as the fitting is tightened. Independent claims 1 and 23 are further illustrative of the appealed subject matter and copies thereof, as they appear in the appendix to the appellant's brief, are appended to this opinion.

The references of record relied on by the Examiner are:

White	906,761	Dec. 15, 1908
Leigh	4,854,597	Aug. 8, 1989
McGarvey	5,222,747	June 29, 1993
Genou <sup>2</sup>	PCT/WO89/03495	Apr. 20, 1989

Claims 1-18 and 22 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

Claims 19 and 20 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 6 and 9 of U.S. Patent No. 5,222,747.

Claim 23 stands rejected under the judicially created

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<sup>2</sup> Translation attached.

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doctrine of obviousness-type double patenting as being unpatentable over claims 1, 6 and 9 of U.S. Patent No. 5,222,747 in view of Leigh.

Claim 23 stands rejected under 35 U.S.C. 102(b) as being anticipated by Genou.

Claims 19, 20 and 23 stand rejected under 35 U.S.C. 103 as being unpatentable over Leigh in view of White.

#### **THE SECTION 112 REJECTION**

In the first Office action (Paper No. 3) the examiner required an election of species between the following disclosed species of the claimed invention: (I) Figs. 1, 2, 5 and 6; (II) Figs. 3, 4, 7 and 8; (III) Figs 9, 10, 13 and 14; and (IV) Figs. 11, 12, 15 and 16. Species (I) is directed to an embodiment wherein (a) the inner diameter of the gasket relative to the inner diameter of the fitting adjacent the end of the protruding formations is smaller in the untightened state but the same as or equal to in the tightened state and (b) the inner surfaces of the fitting adjacent the protruding formations are cylindrical. Species (II) is directed to an embodiment wherein (a) the inner diameter of the gasket relative to the inner diameter of the fitting adjacent the end of the protruding formations is the same as or equal to in the untightened state but slightly greater than in the tightened state and (b) the inner surfaces of the fitting adjacent the protruding formations are cylindrical. Species

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(III) is similar to Species (I) except that the inner surfaces of the fitting adjacent the protruding formations include flaring portions. Species (IV) is similar to Species (II) except that the inner surfaces of the fitting adjacent the protruding formations include flaring portions. In a response filed on July 21, 1993 (Paper No. 5) the appellant elected species (I) stating that claims 1-11, 15, 16, 18-21 and 23 were readable on the elected embodiment. The examiner disagreed, contending that only claims 19-21 and 23 were readable on the elected embodiment. Since the appellant and examiner could not agree on the metes and bounds of the claims the examiner, citing the provisions of M.P.E.P. 821 as authority, rejected claims 1-18 and 22 under the second paragraph of § 112.

At the root of the disagreement between the appellant and examiner is whether the recitation that the inner diameter of the gasket is "substantially equal to" the inner diameter of the tubular elements as set forth in certain of the claims is readable upon all the embodiments as the appellant believes, or whether it is readable on only the two embodiments wherein the inner diameter of the gasket in the tightened state is slightly greater than the diameter of the inner surfaces of the fitting adjacent the protruding formations as the examiner believes. It is the examiner's position that,

[a]s evidenced by the previous arguments of record, the

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scope of claims 1-18 and 22 is indefinite. Applicant has defined the term "substantially equal" in the specification and his arguments as being applicable to a structure in which the initial diameter of the seal is equal to that of the tubular members, then upon compression the gasket is forced radially outward so that the inner diameter of the gasket is slightly greater than the inner diameters of the tubular members (e.g. figs. 15-16). Applicant has differentiated this structure from a second embodiment in which the inner diameter of the gasket is initially smaller than that of the tubular members, and upon compression, the inner diameters of the gasket and tubular members become equal (e.g. - figs. 13-14). Applicant now attempts to assign a new meaning to these previously defined terms by asserting that the term "substantially equal" is intended to encompass both embodiments. This assertion being contrary to the specification and to the principle of claim differentiation. (see final rejection, page 3).

We cannot agree with the examiner that claims 1-18 and 22 do not satisfy the requirements of the second paragraph of § 112. Notwithstanding what the appellant may have argued in a particular response to one of the examiner's rejections, a decision as to claim indefiniteness requires a determination whether those skilled in the art would understand what is claimed. *See Amgen Inc. v. Chugai Pharmaceutical Co.*, 927 F.2d 1200, 18 USPQ2d 1016 (Fed. Cir. 1991). Moreover, claim language must be read in light of the specification as it would be interpreted by one of ordinary skill in the art (*see In re Moore*, 439 F.2d 1232, 169 USPQ 236 (CCPA 1971)) and, when words of degree are used (e.g., "substantially equal to"), it is necessary to determine whether the specification provides some standard for

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measuring that degree (*see Seattle Box Company, Inc. v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 221 USPQ 568 (Fed. Cir. 1984)).

Here, the specification does not utilize the terminology "substantially equal" to encompass **only** the embodiments of Species (II) and (IV) as the examiner contends. Instead, the specification **also** utilizes the terminology "substantially equal to" in describing the embodiment of Species (I) (see page 10, line 18) and the embodiment of Species (III) (see page 18, line 30). Thus, when read in light of the specification, one of ordinary skill in this art would understand that the terminology "substantially equal to" encompasses all the embodiments. Additionally, the specification on pages 8-10, 12, 13, 18 and 20 provides a standard for measuring the words of degree "substantially equal to." This being the case, we will not sustain the examiner's rejection of claims 1-18 and 22 under 35 U.S.C. 112, second paragraph.

#### **THE DOUBLE PATENTING REJECTIONS**

According to the examiner

Appellant's prior '747 patent has a filing date of 5/1/91 and is essentially an improvement over his earlier inventions in that it includes "overtightening protection". The present application filed 8/31/92 **incorporates Appellant's previously disclosed overtightening protection**, and adds the additional "improvement" of using a difference in initial gasket diameter in order to obtain the desired zero dead volume, as evidenced as Appellant's designation of the

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present application as a "CIP" of patented application 694,066 [the '747 patent] is the broader generic application, and the present application is its improvement. (see answer, pages 6 and 7; emphasis in original)

We do not support the examiner's position. A patent's disclosure cannot be considered as "prior art" in considering obviousness-type double patenting. See, e.g., *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970). Instead, the law of double patenting is concerned **only** with that which is claimed and thus involves an inquiry into what, if anything, has been claimed twice. See *General Foods Corp. v. Studiengesellschaft Kohle mbH*, 972 F.2d 1272, 23 USPQ2d 1839 (Fed. Cir. 1992). With respect to a rejection based on obviousness-type double patenting it should also be noted the court in *In re Braat*, 937 F.2d 589, 592, 19 USPQ2d 1289, 1291, (Fed. Cir. 1991) stated that

[o]bviousness-type double patenting is a judicially created doctrine intended to prevent **improper** timewise extension of the patent right by prohibiting the issuance of claims in a second patent which are not "patentably distinct" from the claims of a first patent. See *In re Longi*, 759 F.2d 887, 892, 225 USPQ 645, 648 (Fed. Cir. 1985). The doctrine has also been phrased as prohibiting claims in the second patent which define "merely an obvious variation" of an invention claimed in the first patent. *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970). (emphasis in original)

Accordingly, the threshold issue to be determined here is whether claims 19, 20 and 23 are patentably distinct from (or merely an obvious variation of) claims 1, 6 and 9 of the '747 patent. In

making such a determination it is imperative to bear in mind that a comparison can be made only with that which is claimed. As the court in *General Foods* stated at 23 USPQ2d 1846

... precedent makes clear that the **disclosure** of a patent cited in support of a double patenting rejection cannot be used as though it were prior art, **even where the disclosure is found in the claims.** See, e.g., *Braat*, 937 F.2d at 594 n.5, 19 USPQ at 1293 n.5 ("The patent disclosure must not be used as prior art"); *Vogel*, 422 F.2d at 442, 164 USPQ at 622 (in considering obviousness-type double patenting, "the patent disclosure may not be used as prior art"); *In re Plank*, 339 F.2d 241, 242, 158 USPQ 328, 329 (CCPA 1968) ("Its claims [Plank et al. patent] are used as the basis for a double patenting rejection. It is not a prior art reference"); *In re Aldrich*, 398 F.2d 855, 859, 158 USPQ 311, 314 (CCPA 1968) ("double patenting rejections cannot be based on section 103, ... or on the disclosures of the patents whose claims are relied on to demonstrate double patenting or on the 'disclosures' of their claims. ... [P]atent claims are looked to only to see what **has been patented**, the subject matter which **has been protected**, not for something one may find to be disclosed by reading them"); *In re Boylan*, 392 F.2d 1017, 1018 n.1, 157 USPQ 370, 371 n.1 (CCPA 1968) ("in analyzing cases of these types, it must always be carefully observed that the appellant's patent is not 'prior art' under either section 102 or section 103 of the 1952 Patent Act");.... They [the patent claims] are not treated as prior art for the simple reason they are no more 'prior art' under the statute than the specification"); *In re Sarett*, 327 F.2d 1005, 1013, 140 USPQ 474, 481 (CCPA 1964) ("We are not here concerned with what one skilled in the art would be aware [of]from reading the claims but with **what inventions the claims define.**") (emphasis in original)

Here, claims 1, 6 and 9 of the '747 patent as well as 19, 20 and 23 of the instant application include the recitation of a face seal fitting comprising a gasket and at least one tubular member which has a projection (or bead) and an inner surface



which defines a passageway or conduit (claims 1, 6 and 9 of the '747 patent and claims 19 and 20 of the instant application are directed to a face seal fitting while claim 23 of the instant application is directed to a method of forming a seal in a face seal fitting). Claims 1, 6 and 9 of the '747 patent further recite, inter alia, the structural limitations that (a) the gasket has an outer section which limits the movement of (or the compressive force exerted on) the projection or bead on the tubular member and (b) the gasket has beveled surfaces with axial dimensions which correspond to the axial dimension of the projection or bead. Claims 19, 20 and 23 of the instant application do not include the above-noted structural limitations (a) and (b) but include a further structural limitation (c), i.e., that when in sealing engagement the gasket as an inner cylindrical surface having "substantially the same" diameter as the inner diameter of the conduit, which claims 1, 6 and 9 of the '747 patent do not. Obviously, neither claims 19, 20 and 23 of the instant application nor claims 1, 6 and 9 of the '747 patent are "generic." In essence what the examiner has done is exactly what the court in *General Foods* stated he could not, namely, treat the claims of the '747 patent as "prior art" and then omit from them the above-noted limitations "(a)" and "(b)" but add to them the above-noted limitation "(c)", all on the basis of the bald assertion that it would have been obvious.

In view of the above-noted differences between claims 1, 6 and 9 of the '747 patent on the one hand and claims 19, 20 and 23 on the other hand, we are satisfied that the invention defined by these two groups of claims taken as a whole are patentably distinct. This being the case, we will not sustain the examiner's rejection of claims 19, 20 and 23 under obviousness-type double patenting.

#### THE SECTION 102 REJECTION

In the examiner's view

it is clear that the gasket of PCT'3495 [Genou] is tightened and centered by engagement of the end formations of the tubular members with the beveled faces of the gasket. This ramping effect is the same effect claimed by Appellant to achieve the enlargement of the inner diameter of the gasket (i.e. - creation of a resultant radially outward force on the gasket). PCT'3495 clearly set forth each and every structural feature and method step set forth in claim 23. In addition, the enlargement of the inner diameter of the gasket is inherently produced by the engagement of the end formations with the beveled surfaces 24, 24' of the gasket. Engagement of the sharply angled end formations 18, 18' with beveled surfaces 24, 24' is clearly sufficient to produce a resultant force that is radially outward, thereby acting to expand the inner diameter of the gasket. (see answer, page 8)

While we agree with the examiner that the gasket 20 of Genou is centered and tightened by engagement with the end portions 18, 18', we cannot agree that the interaction of the tapered portions 16, 16' of these end portions with the beveled surfaces 24, 24' of the gasket would inherently produce a resultant force that would expand the inner diameter of the gasket. The "ramping

effect" of the appellant's device is not the same as that of Genou as the examiner suggests. In the appellant's device, rounded or arcuate surfaces on the projections cooperate with beveled surfaces on the gasket in such a manner so as to provide contact only along a single annular line. In the device of Genou, however, beveled surfaces 16', 16 on the projection cooperate with beveled surfaces 24, 24' on the gasket along the full extent of the beveled surfaces. In addition, vertical annular surfaces 19, 19' on the projections cooperate with vertical annular surfaces 23, 23' on the gasket of Genou so as to also provide contact along the full extent of the interface of these annular surfaces. Indeed, Genou describes the coaction of these elements in the fourth full paragraph of page 4 in the following manner:

In the tightening process self-centering of the connection 20 is ensured by interaction of the tapering walls 16, 16' of the adapters 12, 13 with the tapering parts 24, 24' of the connection 20. When tightening has been completed, these tapering parts 24, 24' are **restrained** by the tapering walls 16, 16', while the coronal radial surfaces 23, 23' of the connection 20 are themselves **restrained** by the coronal surfaces 19, 19' of the adapters 12, 13. (emphasis ours)

Thus, contrary to the examiner's position, Genou describes the coaction between the surfaces of the projection and the surfaces of the gasket to be one of **restraint**, rather than one of radial expansion. In any event, Genou makes no mention whatsoever that

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his structure would expand the inner diameter of the gasket as the examiner suggests and thus the examiner's position, at the most, is based on a speculative possibility. Inherency, however, may not be established by probabilities or possibilities. See *In re Oelrich*, 666 F.2d 578, 212 USPQ 323 (CCPA 1981) and *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993).

In view of the foregoing, we will not sustain the examiner's rejection of claim 23 under 35 U.S.C. 102(b).

#### THE SECTION 103 REJECTION

With respect to the rejection under 35 U.S.C. 103 the final rejection states

[t]his rejection is set forth in ¶5 of the office action mailed 3/30/90 in parent application 392,460. This rejection, and the comments associated therewith, are incorporated herein by reference.<sup>3</sup>

Leigh discloses a seal structure and the claimed method steps of engaging and tightening, but does not disclose the minimization or elimination of dead volumes by making the inner diameter of the gasket equal to the inner diameters of the tubular members.

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<sup>3</sup> M.P.E.P. 1208 provides that "[o]nly those statements of grounds of rejection as appear in a *single* prior action may be incorporated by reference. An examiner's answer should not refer, either directly or indirectly, to more than one prior Office action." (emphasis in original). Here, the examiner's answer refers to the final rejection which in turn refers to another office action, NOT IN THIS APPLICATION BUT IN AN ACTION IN AN ENTIRELY DIFFERENT APPLICATION. Such a procedure is TOTALLY IMPROPER AND INAPPROPRIATE.

White teaches minimization or elimination of dead volumes by providing a sealing structure in which the inner diameter of the sealing gasket is equal to the inner diameter of the tubular members.

Therefore it would have been obvious, in view of White, to provide the claimed sealing structure in which the inner diameters of the gasket and tubular members are equal in order to minimize or eliminate zero dead volume. (see final rejection, page 6)

We cannot agree with the examiner that there is any teaching to combine the teachings of Leigh and White and, even if they were combined, we do not find the claimed invention would result. It is well settled that the teachings of the prior art taken as a whole which must suggest making the modification. See *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992). Here, we find no such suggestion. Leigh states that the gasket of his invention

improves over gaskets of the prior art in that it has a shape which causes the elements of the fitting to align with the gasket so that a uniform sealing force on both sides of the gasket is achieved. Moreover, sealing is provided in a single line contact which enables a maximum sealing force to be applied on each side of the gasket. These advantages are provided while at the same time having a minimum area of the gasket project into the fluid stream so that there is little or no area for entrapping material from fluid flowing through the fitting. (see column 1, lines 25-35)

To this end, Leigh provides rounded nose portions 23 on the fitting which cooperate with conical portions 17, 19 on the gasket. On the other hand, White only discloses a annular gasket 5 of rectangular cross-section which coacts with a groove 6 of

rectangular cross-section. It is readily apparent that if the teachings of Leigh and White were combined in such a manner that the dead volume were minimized or eliminated as the examiner has proposed, the modified device would no longer provide a "single line contact," thus destroying that upon which Leigh's invention was based. Accordingly, we do not believe that the artisan would have been motivated to make such a modification. Note *Ex parte Hartmann*, 186 USPQ 366 (Bd.App. 1974).

Moreover, even if the teachings of Leigh and White were combined, we are at a complete loss to understand how the claimed invention would result. Independent claim 19 requires an annular sealing bead having a rounded annular profile and a rectilinear inner profile defining an open passageway with the tubular member adjacent the gasket. Independent claim 23 requires annular end formations projecting axially from the end faces of first and second tubular elements which have portions that lie on the inner surface of the tubular elements and which engage bevel faces on the gasket to enlarge the inner diameter of the gasket. While Leigh provides rounded nose portions 23 on the fitting which cooperate with conical portions 17, 19 on the gasket, Leigh neither provides a "rectilinear inner profile defining an open passageway with the tubular member adjacent to said gasket" as independent claim 19 requires nor provides end faces having a "farthest extending portion [which] lies on the inner surface of

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its associated tubular element" as independent claim 23 requires. White in no way overcomes these deficiencies. As we have noted above, White only discloses a annular gasket 5 of rectangular cross-section which coacts with a groove 6 of rectangular cross-section in such a manner "that a smooth continuous passage is formed" (see lines 53-58). This being the case, we are at a complete loss to understand how the teachings of Leigh and White could be combined so that these above-noted limitations would result.

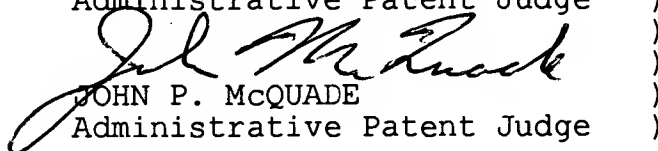
In view of the foregoing, we will not sustain the examiner's rejection of claims 19, 20 and 23 under 35 U.S.C. 103.

The decision of the examiner is reversed.

**REVERSED**

  
JAMES M. MEISTER  
Administrative Patent Judge

  
CHARLES E. FRANKFORT  
Administrative Patent Judge

  
JOHN P. McQUADE  
Administrative Patent Judge

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**APPENDIX**

1. A face seal fitting, comprising:

a first tubular element having an end face, an inner surface defining a flowpath and a first annular end formation projecting axially from the end face of said first tubular element;

a second tubular element having an end face, an inner surface further defining said flowpath and a second annular end formation projecting axially from the end face of said second tubular element; and

a metal gasket including

an inner section in the form of an annulus having an axis, and

a tapered section extending radially outward from said inner section, said tapered section defining two bevel faces directed away from one another and inwardly toward the axis of said annulus,

wherein said first annular end formation engages one of said bevel faces in a first region, said second annular end formation engages the other of said bevel faces in a second region, said first and second annular end formations have portions extending axially the farthest from the end faces of said first and second tubular elements, each said farthest extending portion lies on the inner surface of its associated tubular element and has an inner diameter, and said gasket has an inner diameter substantially equal to the inner diameters of said farthest extending portions,

whereby dead volumes along the flowpath through said fitting are minimized.

23. A method of making a seal in a face seal fitting including

a first tubular element having an end face, an inner surface defining a flowpath and a first annular end formation projecting axially from the end face of said first tubular element;

a second tubular element having an end face, an inner surface further defining said flowpath and a second annular end formation projecting axially from the end face of said tubular element; and

a metal gasket including

an inner section in the form of an annulus having an axis, and

a tapered section extending radially outward from said inner section, said tapered section defining two bevel faces directed away from one another and inwardly toward the axis of said annulus,

wherein said first annular end formation engages one of said bevel faces in a first region, said second annular end

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formation engages the other of said bevel faces in a second region, said first and second annular end formations having portions extending axially the farthest from the end faces of said first and second tubular elements, each said farthest extending portion lies on the inner surface of its associated tubular element and has an inner diameter, the method comprising:

engaging said bevel faces with said annular end formations; and

tightening said annular end formations against said bevel faces to enlarge the inner diameter of said gasket to a diameter substantially equal to the inner diameter of said farthest extending portions of said first and second annular end formations.